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ABSTRACT

The basic purpose of the present study was to study the effectiveness of using trained peers to lead small process groups in freshman orientation. A sample of 253 freshman students from East Central State College in Ada, Oklahoma, were used for the experiment. The instrument used to determine whether perceptions of the college campus climate differed after alternate freshman orientation programs was the College and University Environment Scales (CUES). It was found that the experience of participating in a small group led by a trained peer did not change the perceptions of the freshmen in such a way as to be observed on the CUES. Neither of the experimental treatments influenced the cumulative grade point averages during the first semester, and neither influenced the enrollment ratios of the groups for the succeeding semester. (HS)

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Final Report

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EVALUATING THE EFFECTS OF USING UPPERCLASSMEN TRAINED IN GROUP DYNAMICS TO LEAD SMALL PROCESS-ORIENTED FRESHMAN ORIENTATION GROUPS

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December 1972

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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Final Report

Contract No. OEC-6-71-0521-(509)

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EVALUATING THE EFFECTS OF USING UPPERCLASSMEN TRAINED IN GROUP DYNAMICS TO LEAD SMALL PROCESS-ORIENTED FRESHMAN ORIENTATION GROUPS

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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National Center for Educational Research and Development
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ABSTRACT

EVALUATING THE EFFECTS OF USING
UPPERCLASSMEN TRAINED IN GROUP DYNAMICS
TO LEAD SMALL PROCESS-ORIENTED FRESHMAN
ORIENTATION GROUPS

The basic purpose was to study the effectiveness of using trained peers to lead small process groups in freshman orientation. The College and University Environment Scales, second edition, was the basic instrumentation used to determine whether perceptions of the college campus climate differed after alternate freshman orientation programs. Overall grade point average for the fall semester was chosen as the criterion of academic performance. Enrollment for the succeeding semester was used to determine the holding power of the college. Subjects were 253 college freshmen enrolled in Freshman Orientation 101 for the Fall 1971 semester at East Central State College, Ada, Oklahoma. The design of the study provided for the College and University Environment Scales to be administered after the nine week orientation course, in November, 1971. Grades for the fall semester were obtained the following January, and overall grade point averages were computed. Enrollment data were analyzed to determine which subjects of the study re-enrolled for the spring semester. Statistical analyses were completed for the overall group of 253 subjects, being divided by design into the experimental (traditional) group of 143 students, the experimental (small groups) section of 74 students, and the control group of 36 students. Kramer's extension of Duncan's Multiple Range Test was computed for the scales of the College and University Environment Scales (CUES), and for the cumulative grade point averages. A Chi square distribution technique was used to analyze the enrollment patterns of the groups.

Findings and Conclusions: The experience of participating in a small group led by a trained peer did not change the perceptions of the freshmen in such a way as to be observed on the College and University Environment Scales. The freshmen who experienced the traditional form of freshman orientation

did score significantly higher on the Propriety scale of the CUES. The control group did not differ significantly in their perception of the college campus climate, as measured by CUES. Neither of the experimental treatments influenced the cumulative grade point averages during the first semester. Neither of the experimental treatments influenced the enrollment ratios of the groups for the succeeding semester.

The conclusion was reached that the attempted orientation procedures did not make a significant difference on the variables of freshman life as measured. Recommendation discussed the need to consider the results of this study with the purpose of ongoing evaluation of programs.

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PREFACE

The writer wishes to express his appreciation to the trainers of the peer group leaders, Dr. Rex Finnegan, Director, University Counseling Center, Oklahoma State University; and Dr. Pat Murphy, Associate Director, University Counseling Center, Oklahoma State University, Stillwater, Oklahoma.

Appreciation is expressed to my colleagues at East Central State College, Ada, Oklahoma, for their assistance, encouragement and support. Special recognition is extended to Dr. Stanley Wagner, President, Dr. Roy Maxwell, Director of Research and Development, and Dr. Gerald Boggs.

CHAPTER I

NATURE OF PROBLEM

Introduction

During the last fifty years, a dramatic change has occurred on the campus of the American college and university. The American dream of opportunity and continued prosperity combined to cause a tremendous increase of students. Most of these students were, and are, first-generation college students. Their parents do not know how to help their child survive the pace and competition. Increased institutional size and complexity creates situations that render regular academic faculty rather ineffectual in assisting these students personally.

The colleges and universities have attempted to meet the needs of these beginning students by creating new special courses and by assigning the task to specially-trained staff, usually the student personnel office.

Some effective method had to be found to orient beginning freshmen to the academic life and to help them relate effectively to their new environment. Some sort of initial

experience had to be devised that would adequately assist the student as he started his college career.

Each fall, freshmen are forced to mill about, line up, and go through exactly prescribed steps to enroll in their college or university. To a large degree, the students are mechanically delivered through the process of being tested, sorted, counted, and programmed into the experience of college life. These students are buffeted by time pressures, by competition, and by new-found responsibilities.

In response to the need created by these experiences, various first course approaches have been designed. Sometimes these courses are called "Orientation," or "Freshman Seminar," or "Introduction to College," or "Reflective Thinking," or "Man In Society," or "Comtemporary Issues." (Ball, 1923). Any of these names may be used to designate the experience being created to help beginning students get started "right." Although there is a wide difference of opinion regarding the definition of "right" and the method to accomplish this goal, each such course tries to catch and hold the freshman long enough to assure his education will take.

Statement of the Problem

This research project was concerned with an investigation of differences in selected measures of adjustment to college life between control and experimental groups of the fall 1971 Freshman Orientation 101 class, East Central State College; Ada, Oklahoma.

The selected measures of adjustment, as operationally defined, are perceptions of the college campus climate, grade point averages, and retention in college during the following semester.

Scope and Need for the Study

This section of the study will attempt to provide a theoretical orientation for the present investigation. Three facets of student orientation will be presented. In sequence, the traditional and historical approaches to freshman orientation, the needs of contemporary college students, and the stated needs of the freshman orientation staff at East Central State College; Ada, Oklahoma, will be presented. A continuing concern for entering freshmen has been expressed (President Wagner, 1969) in the forms of encouragement to evaluate the present orientation program. Additionally, this research effort to improve the freshman orientation program at East Central State College has been supported.

As beginning freshman classes arrive upon the campus scene, most colleges and universities attempt to assist these new students in their efforts to adjust to the new role of college student. The rise of formal orientation practices has roughly paralleled the rise of the student personnel movement (Mueller, 1961).

Since World War One, several forms of student personnel services have arisen to help students cope with the growing complexity of higher education and with the vast numbers of fellow students encountered upon college campuses (Brubacher and Rudy, 1968). Demonstrating the acceleration of concern for entering freshmen is the fact that in 1916 only six colleges supported a formal orientation program (Brubacher and Rudy, 1968). By 1966, 92.4% of the 2139 institutions surveyed by Kronovet (1969) reported orientation programs.

Traditionally, faculty and student personnel staff have attempted to provide the services and experiences freshmen needed. The orientation programs existing during the first half of the century usually consisted of a faculty member and/or a student personnel staff member designing and teaching a freshman orientation course in a very similar fashion to other academic courses (Drake, 1966). The investigations of other authors may be combined to compile a list of the purposes historically given to formal freshman orientation programs: 1) Improves grades and initial adjustment, 2)

creates good public relations tool, 3) reduces fall testing load, 4) lessens confusion of freshmen in fall, 5) helps personalize the large institution (Goodrich and Pierson, 1959), 6) involves the student earlier in the college life, 7) provides for development case folders, and 8) provides opportunity for possible early detection and prevention of emotional problems (Forrest and Knapp, 1966).

These purposes seem to this investigator to have face validity for freshman orientation programs although some of the purposes primarily benefit the institution, not the student. When institutional needs such as registration and the development of case folders have priority over student needs, Riesman (1961) describes the effect to be a "disorientation" course. Black (1964) claims that present programs are projections of the directors' needs as much as they are programs designed to meet the needs of students. A little less harsh interpretation is made by Arbuckle (1949) when he says:

> Some of these (orientation programs) have gradually developed because of an indicated need while others have been established from the top by administrators because this was considered the thing to do /p. 177.

Professional concern also appears in other publications. Grier (1966) expressed his concern by writing, "Our underlying theories are made up of hopes, good will, educated guesses, and what we fondly believe to be needs of new students"/p. 377. Plutchik and Hoffman (1958) noted that

traditional orientation practices were in serious difficulty. They substantiated the charge by reporting the large number of colleges and universities considering orientation changes. Six years later, Caple (1964) recommended that freshman orientation courses should be removed from the curriculum unless more appropriateness and effectiveness could be demonstrated.

Changes were being considered in the area of personnel to be utilized as well as in the design of the program. Fahrbach (1960) pointed to one of the weaknesses when he determined that faculty appeared to have difficulty in providing for personal needs of students. Myers (1964) suggested that the personnel needed to help freshmen adjust to college included parents, students, former teachers and college staff. A 1971 survey of thirty institutions of higher education indicated widespread use of personnel staff, faculty, fellow students, and non-college personnel (Freshmen get help, 1971). Coupled with this change in philosophy of personnel to be used was the change in the design of the actual practice. Kronovet (1969) in a survey of 2,139 institutions of higher learning, summarized by noting the trend toward Freshman Weeks, Pre-college clinics, and other derivations from the traditional semester long course.

At least two reasons are put forth to explain the change in orientation practices. Mueller (1961) describes the

growth of student populations, especially their diversity, as a key consideration in outmoding older methods and theories of education in general. Secondly, when orientation programs were questioned, evaluation procedures demonstrated that the results of the orientation practices were not always the anticipated result (Foxley, 1969). Students, when given the opportunity, reported that their needs were not being met (Patty, 1966).

Purpose of the Study

The purpose of this study was to test the hypothesis that those students whose freshman orientation course consisted of small developmental groups led by trained peers would demonstrate no more competence in adjusting to college than the information-centered, professionally taught orientation approach. One secondary purpose was to test the differences either program made when compared to a control group (no formal orientation program).

Definitions of Concepts and Terms

1. Orientation: An institution's structured efforts designed to enhance the new college students' educational and social experiences. It is a process designed to break down the barriers that stand between the opportunities that colleges offer and the ability of the student to benefit from the opportunities (Hoffman & Plutchik, p. 28, 1959).

2. Orientation course: The nine-week long, one college credit hour course Freshman Orientation 101.

3. Paraprofessional counselors: The term paraprofessional indicates those full-time undergraduate students interested in group work or in helping freshmen. These counselors will have had some previous training or experience in counseling and group work; thus, trained peers.

4. Grade point average: The cumulative grade point average at the end of the first semester.

5. Retention or continued enrollment: A student who completes formal enrollment for the second semester of his freshman year.

6. Definitions of groups:

   a) Experimental (Traditional): Those sections of freshman orientation with preplanned lectures, discussions, films, commercially prepared materials to improve studying and reading skills, and other activities designed to reach the course objectives (Marker, 1970).

   b) Experimental (Small Groups): Those sections being directed by peers who are full-time students classified as undergraduates.

   c) Control group (CG): There will be freshmen randomly selected from the freshman orientation class enrollment to be excluded from either formal freshman orientation program for the purpose of control.

7. Perception of college campus climate: This concept will be defined and measured in terms of the scales included in College and University Environment Scales, second edition.

Rationale for Hypotheses

Although some studies similar in nature to this research have failed to demonstrate any significant relationship between the program and academic success, retention, and other related variables (Warren, 1970; Reiter, 1964); a cursory examination of the literature reveals that a majority of the experimentation was oriented toward intellectual facts, information, subject matter content, and understanding of things (cognitive domain) rather than toward people and understanding of self (Plutchik and Hoffman, 1958; Kronovet, 1969; Drake, 1966). In other words, there has been an emphasis on the facts at the expense of feelings and emotions.

Those efforts designed to meet the expressed needs of students have differed primarily in either of two ways from this study. Either the groups were led by trained counselors or by undergraduates not trained in process or dynamics and/or the program was remedial in design. This study will attempt to test the following hypotheses.

Hypotheses

1. There are no significant differences in perceptions of the college campus climate as measured by the College and University Environment Scales, second edition.

2. There are no significant differences in cumulative first semester grade point averages among the traditional course participants,

participants in small process groups led by peers, and in the control group who experienced no formal program.

3. There are no significant differences in enrollment for the succeeding semester among participants from the traditional classes, the small groups, or the control groups.

Significance

Institutions of higher education that implement new or re-created orientation programs have a unique opportunity and duty to determine whether the program's objectives match student needs. This study should assist in determining the effectiveness of a developmental program experienced at the beginning of the college career. Hopefully, this study will add to the empirical base necessary for adequate institutional curriculum evaluation at East Central State College; Ada, Oklahoma.

Summary

Dissatisfaction with orientation programs has caused concern and willingness to try new approaches.

During this century, the number of colleges and universities deciding to implement some formal type of orientation experience has grown from a handful to almost universal acceptance.

Earlier, regular administrative staff and the academic faculty planned and executed the orientation programs; whereas, recently there is considerable involvement of student personnel staff, students, and non-college persons.

The content of the orientation course seems to vary with the philosophy attached to each college's definition of orientation.

An apparent trend indicates more emphasis being placed on the satisfaction of the social/personal needs of freshmen by fellow students.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to present the relevant literature related to developing orientation practices in higher education in the United States. A short review of the goals, history, and development of the freshman orientation movement previews the discussion of the needs of contemporary college students. Then, the use of peers, fellow college students, as effective group leaders is presented to characterize the use of paraprofessionals.

Historical Freshman Orientation Practices

Although Boston University inaugurated the first freshman orientation course in 1888, little attention was given to formal orientation practices nationally until the early 1900's. From 1900 to 1920, various colleges and universities developed series of lectures dealing with various phases of university life. Normally, these were required, non-credit courses (Drake, 1966).

During the 1920's, the orientation courses' content reflected higher education's enchantment with the liberal arts approach to higher education. Doermann (1926) reported such course titles as Dartmouth's "Evolution" and Columbia's "Introduction to Contemporary Civilization." Other colleges, such as Antioch and Brown used the approach of issues and/or problems, i.e., study techniques, use of the library, personal etiquette, and vocational choice.

Concurrently, several institutions used a short period of time to test, counsel, inform, register and entertain freshmen prior to the beginning of classes. These pre-college practices were commonly called, "Freshman Weeks" (Drake, 1966).

These early orientation attempts were received quite favorably. By 1930, Wrenn (1930) reported better than one-half of all colleges and universities had initiated some type of orientation practice. Following World War II, Kamm and Wrenn (1947) conducted a higher education survey of 126 institutions and reported all either had an orientation program or were planning one. Recently, Kronovet (1969) determined that 92% of the 1,327 reporting institutions in her survey of 2,139 United States colleges and universities use some formal form of freshman orientation.

The most frequently utilized orientation practice today is the short 2- to 7-day pre-college clinic (Kronovet, 1969).

Goals of Freshman Orientation

The goals of the popular "Freshman Week" approach are usually related to institutional administrative tasks and some social/personal activities, such as picnics, dances, and campus tours (Kronovet, 1969).

The goals of the semester long required course type of freshman orientation are more diversified. Some courses introduced the freshman to broad areas of academic study (Bell, 1968). Dartmouth's "Evolution" and Columbia's "Introduction to Contemporary Civilization" would be examples of this purpose (Ball, 1923). This academic purpose of the orientation course has become atypical today (Grant, 1971).

Krode (1930) and Bookman (1948) reported many freshman orientation programs attempted to help freshmen with their specific problems and needs. Schaffer (1962) clarified the inherent difficulty of meeting "assumed" student needs instead of "expressed" or "determined" student needs. Strang (1951) supported the value that the freshmen's personal problems and matters were more important than the introduction to intellectual studies.

This investigator attended the 1971 National Orientation Directors' Conference. Many of the colleges and universities represented provided pamphlets and leaflets describing their respective orientation programs. Of the 100 or more

institutions represented, only four provided information speaking directly and specifically to the goals of the programs.

The University of South Carolina listed six goals in their fall 1971 Orientation Programs: 1) to provide chance to make friends, 2) to familiarize students with registration procedures, 3) to plan academic programs, 4) to explain the rules and regulations, 5) to familiarize the student to the campus, and 6) to offer some vocational choice help (Freshman Orientation, University of South Carolina, 1971).

The University of Maryland stated a general goal of having the purpose of acquainting students with services in the physical, academic, cultural, and social areas (Freshman Orientation, University of Maryland, 1971).

Wichita State University described their goals as being in three areas: 1) helping the student acquire new friends, 2) planning academic programs, and 3) registering and enrolling (Freshman Orientation, Wichita State University, 1971).

Purdue University stated their goals of orientation to include introducing the student to the campus and opportunities found there and to answer questions (Freshman Orientation, Purdue University, 1971).

Some institutions have contracted the orientation program to specialty service companies; such as National Leadership Methods, Austin, Texas, who emphasize the use of fellow

students in group leadership roles to help the freshmen achieve security, adjustment, and identity through the process of a small group experience as orientation (Davis, 1971).

One private Texas firm (Davis, 1971) reported 200 higher education institutions as clients of their program. Davis (1971) described his program as one using trained college students as group leaders in freshman orientation. The stated purpose of this approach was to assist the freshman in meeting his personal needs as described in the preceeding paragraph.

As vague and general as these stated goals seem to be, they remain the only evidence of goals that appeared on orientation information material from these various colleges and universities represented at the 1971 National Orientation Directors' Conference.

The identification of which needs students actually have, or report, seemed essential to any adequate attempt at orientation.

Needs of College Students

By the 1960's, college students reported by various methods that their needs, aspirations, and values were changing and unmet (Coelho, Hamburg, and Murphey, 1963).

These reported unmet needs and especially the method used to communicate this feeling reflects America's societal problems. In this unstable and changing world, contemporary college students grow up with their parents' values and commitments (Kaufman, et al., 1968). Typically, today's college students see the world as cold, mechanical, abstract, and emotionally meaningless (Coelho, et al., 1963). Affluence in the midst of poverty, the racial tensions, the polluted environment, the decaying cities, and the apparent lowering of the potential quality of life are frequently referred to by such research groups as the National Commission of the Causes and Prevention of Violence (To Establish Justice, 1969) thusly:

> Today's intelligent, idealistic students see a nation which has achieved the physical ability to provide food, shelter and education for all, but has not yet devised social institutions that do so. They see a society, built on the principle that all men are created equal, that has not yet assured equal opportunity in life. They see a world of nation-states with the technical brilliance to harness the ultimate energy, but without the common sense to agree on methods of preventing mutual destruction /pp. 210-211/.

Similarly, a committee investigating the causes of campus tensions listed, as important sources of discontent, the feelings of indifference and neglect, stereotyping, political impotence, police action, discrimination, intimidation, and institutional rigidity (Kamens, 1967).

College students describe their freshman year as a hard or difficult one (Birney, Coplin, and Grose, 1960; Baur, 1965), which is reflected by the fact that most schools' dropout rate is highest during the first year of college (Trent and Medsker, 1968).

There is evidence that freshmen undergo a change in attitudes and behavior after a few months of college. Coelho, Hamburg, and Murphey (1963) noted that during the early months of college (if not the whole freshman year) freshmen attempt to meet as many new friends as possible. Rather indiscriminately, they reach out for those nearest at hand to make friends. These early acquaintances help overcome loneliness, help students feel accepted, and meet the need for orientation to a new situation by sharing information (Feldman and Newcomb, 1970).

These dimensions of student needs seem to be asking whether or not the college experience could assist the student in adjusting and coping with society. The needs of college students have not been met by traditional approaches (Newcomb, 1968).

One of the developmental needs most frequently mentioned in the literature is the need to gain independence from the family and the home (Sanford, 1956). Many students need the independence that will let them decide why they are in college. Since not all students enroll for academic

reasons, an orientation emphasizing intellectual affairs may not meet their other needs (Mayhew, 1969).

During the transition between the security of childhood and the independent adult role, the developing student finds himself in an anxiety-filled position (Wigent, 1971). During childhood the social and personal needs were met by parents. By late adolescence, college students have a strong need of acceptance by age and sex peers (Newcomb, 1968). As a result, students commonly report personal relationships with peers as among the most important ways they attempt to meet their needs (Mayhew, 1969). These students frequently state that they receive very little aid on important problems from parents, schools or college professionals (Mayhew, 1969).

Kauffman (1968) commented that:

> The most effective teachers usually are other students. While classroom instructors have more knowledge and greater skills than a student's classmates, his classmates interact with him more frequently and at a deeper and more intimate level. They therefore contribute greatly to the level of reception he turns on in the classroom. ... so the student friendship group helps determine what is learned in college, how it is learned, and what effect both knowledge and the learning experience have on the student's total personality /pp. 12-13/.

A recent Hazen Foundation research publication (Kauffman, 1968) characterizes today's college student:

1) Students are seeking enduring commitments but are skeptical about the ideologies and orthodoxies that clamor for their loyalty.

2) Because of their suspicion about formal ideology, the new students turn to human relationships as the source of most of the purpose and meaning they seek in their lives.

3) The contemporary college student feels strongly the need to belong but is profoundly skeptical about most of the organization he encounters, particularly an organization that claims to offer him an education.

4) The new student is generous and idealistic in his own fashion but is frequently fearful that any long-term commitment to social service may destroy his idealism and thwart his freedom.

5) The new students, for all their apparent poise and sophistication, are frequently hesitant and uncertain.

6) Because of his doubts about himself, about organizations, and the possibility of faith and commitments, the new college student has a tendency to be suspicious and distrustful of the administrators, and to a lesser extent, the faculty of his college.

7) Students come to college with a great deal of excitement and willingness to do work demanded of them, but their expectations and performance usually decline during the first months of the freshman year.

8) Most students apparently expect that the college years will mark the definitive end of their dependence on their parents /pp. 19-21/.

The college peer group gains power from several ties to its individual members. Newcomb (1968) has developed the rationale that propinquity is one natural explanation of the close and strong ties among these members. College students have the opportunity to spend many hours together.

Feldman and Newcomb (1970) reviewed several studies and concluded that college peer groups provide, "... general

emotional support to the students; the peer group fulfills needs not met by the curriculum, the classroom, or the faculty" /p. 236/. Pervin (1966) found that friends and social ties may also serve to discourage voluntary withdrawal from college for personal or social reasons. The findings of several writers confirm the premise that peer groups can meet the "positive self-image" needs for students who are disappointed or not completely successful academically (Coelho, et al., 1963; Bushnell, 1962; Kamens, 1967).

Three primary functions of college attendance include widening the students' realm of acquaintances, removing some of his provincialisms, and creating a more open person in relation to possible value change (Grant, 1971). Peers and friends do have mutual impacts. A representative sample of existing literature reveals that peer groups at college show a tendency to be similar in values, attitudes, interests and behavior (Feldman and Newcomb, 1970).

Yet, other studies demonstrate how, under certain conditions, the peer group can support and facilitate the academic and intellectual goals of the college (Newcomb, 1968). One review (Newcomb, 1968) of studies reports peer groups

> ... can also challenge old values, provide intellectual stimulation and act as a sounding board for new points of view, present new information and new experiences to the student, help to clarify new self-definitions, suggest new career possibilities, and to provide emotional support of students who are changing /p. 237/.

To further support the contention, Farnsworth (1957) noted, "Among the strongest forces acting on the new student as he enters college are the traditions of the older students handed down ... from one college generation to another" /p. 247/. Freedman (1960) expressed additional support for using peers:

> Suffice it to say now that in our opinion the scholastic and academic aims and processes of the college are in large measure transmitted to incoming students or mediated for them by the predominant student culture /p. 10/.

The Paraprofessional Movement

The fact that peers have considerable influences upon other college students has been demonstrated. Peers are more accessible to students than are professors, counselors, or parents. A peer might help by simply directing a freshman toward a more effective problem-solving approach.

By training the peer helper, paraprofessional, several additional avenues of help can be realized: 1) aid the peer helper to anticipate crisis times, 2) support the peer leader by teaching him how to provide supportive/facilitative counseling, and 3) teach him how to assist others in learning (Pyle and Snyder, 1971).

At first glance, one might assume that a peer or paraprofessional counselor would be an individual with less training than a professional counselor. However, this

concept happens to be an oversimplification. For example, the program developed by Rioch and her associates (Rioch, Elkes, and Flint, 1965) trained mature women as mental health counselors involved an intensive 2-year training program which seemed to compare favorably with most university professional programs, especially in terms of the applied experience received.

Carkhuff (1971) reported that his paraprofessionals received 1,000 hours of training, half of which was human relations training. Therefore, some paraprofessionals appeared to have a significant amount of applied training even if they did not receive academic training and formal degrees. Obviously, however, not all paraprofessional counselors received that much training. For example, several of the chapters in the book by Guerney (1969) reported the use of paraprofessionals who had little formal training.

The amount and type of training paraprofessionals receive seemed to be tied to the kind of function they perform. Some view paraprofessionals functioning basically as professional counselors (Rioch, et al., 1965). Others (Cowan, Zak, and Laird, 1969) have trained volunteers to act as paraprofessionals in elementary schools, as behavioral therapists in hospitals (Kreitzer, 1969) and as companions to troubled college students (McCarthy and Michaud, 1971).

To sum, little could be generalized about paraprofessional counselors with the exception that they have more diverse roles, experiences, and training than do the traditional professional counselors. There is not such thing as a paraprofessional counselor. There are different kinds of non-professional helpers who vary in skill, training, and needs.

Since the mid-1960's a considerable body of research literature has repeatedly confirmed the concepts that non-professionally trained /non-Ph. D. holders/ can be effective as counselors or "helpers." Leadership for this research impetus was given by Robert Carkhuff and his associates. Carkhuff and Truax's (1965) approach was to identify the necessary conditions existing in a counseling or helping relationship:

> (a) Therapist accurate empathic understanding; (b) therapist warmth or positive regard; (c) therapist genuineness of self-congruence; and (d) patient depth of self-exploration /p. 336/.

Carkhuff and Truax (1965) have demonstrated the effectiveness of using paraprofessionally trained personnel as counselors.

The results demonstrated the effectiveness of time-limited lay group counseling, coming from a short-term integrated didactic and experiential approach to effective group leadership. Other research indicated these conditions

predict positive client personality and behavioral change (Rogers, 1962; Tomlinson and Hart, 1962; and Bergin and Soloman, 1963).

Several attempts have been made to apply these findings in a variety of situations. As early as 1965, Frank Riessman (1965) outlined the large number of situations where minimally-trained persons were able to effect an improvement for those needing help. Riessman's documentation covered the famous Synanon drug addict center, Alcoholics Anonymous, and fellow student programs as well as many other specific examples. Riessman concluded that nonprofessionals can help. A side effect noted was the frequent improvement of the functioning of the helper.

By spring 1970, the idea of peer counseling was considered an important enough issue to merit a special issue from the ERIC Counseling and Personnel Services Information Center (Matson, 1970). This entire booklet was used to describe various research and innovative projects using peer counselors in a variety of roles. This document recognized the success and significance of using peer counselors in education. Muro (1970) further delineated the positive effects of using peer counselors in a developmental guidance program in Auburn, Maine. Authorities in higher education borrowed knowledge of the effectiveness of peer counselors from other sources and adapted their use to college life.

Hardee (1959) surveyed the various roles of counselors and noted the use of peer counselors at many higher education institutions. Brown (1965) built upon the knowledge derived from the Hardee survey and analyzed specific behavior of student counselors. Brown concluded that students were frequently used in smaller four-year colleges as effective small group leaders. These leaders were usually dormitory personnel. The students' effectiveness in Brown's study, was determined impressionistically by the director of the counseling center in the 118 colleges surveyed.

Encouraged by the findings of the survey, Brown collaborated with associates (Zunker and Brown, 1966; Brown, 1965; Brown, 1971; Brown, Hassey, and Cortes, 1970) to determine experimentally the actual effect of using peer counselors. The findings of these four investigations included:

1) Student counselors were as effective as professional counselors on all criteria of counseling productivity employed; 2) the student counselors received greater acceptance from counselees than did the professional counselors; and 3) freshmen counseled by student counselors made greater use of the information received during counseling, as reflected by earned grades and residual study problems; 4) students counseled by other students earned one-half letter grade more and scored higher on measures of study behavior than "matched" controls; 5) potential college dropouts benefitted

from student counseling on a multi-criterions basis; 6) finally, a cross-cultural replication study confirmed the hypothesis that students attending the Universidad Nacional Autónoma de Mexico showed significant gains on the same criterion measures.

Related Institutional Research

East Central State College has assumed the obligation of providing experiences designed to meet the beginning freshmen's needs. The staff member (Marker, 1970) responsible for the freshman orientation course has made significant changes in the course design and content and had stated his willingness to participate in experimental research to benefit the class.

The Dean of the College (James, 1969) has been concerned that the needs of incoming freshmen do not seem to be met in a preventive or developmental program.

At the request of President Wagner, Dr. Roy Maxwell (1970), Director of Research and Development at the college, surveyed the 1969 East Central State College freshman class and found the most frequently reported need to be able to identify with the college.

During the next fall, Bonner (1970) conducted a pilot study emphasizing group guidance through the use of upper division students. The objectives of this study were to

determine the effectiveness of a group guidance program upon reducing the freshman attrition rate; to determine the effects of this project on the attitudes of freshmen related to the college, professors, class attendance, and campus organizations; to determine the effects of the group guidance project on the reported self-concept of the freshmen; and to develop peer group leadership skills for the upcoming formal experimental study.

Since no control group was available and the instruments used were designed locally and had no validation data, the results do not seem appropriate to be reported.

Enough interest was aroused by the pilot project to influence Jim Caruthers, Director of the Counseling and Tutoring Special Services Programs, to write a Spring 1971 Project (Caruthers, 1971) whose purpose was to use trained college students to lead small groups in college adjustment processes.

Additional interest in the area of innovation in the freshman orientation class was noted by the paper given at the fall 1971 National Orientation Directors' Conference, Oklahoma State University, Stillwater, Oklahoma (Bonner, 1971).

This paper dealt with a proposed model for a re-created freshman orientation program. This paper recommended the use

of trained college students to assist freshmen in whatever program was eventually designed.

Conclusions Drawn from Review of Literature

The major conclusions which can be drawn from this review of the literature on freshmen orientation programs are:

1. The nature of contemporary higher education determines a need for some type of freshman orientation.

2. Orientation procedures vary from institution to institution.

3. Most colleges and universities provide some type of orientation program.

4. Little experimental research related to the effect of various orientation programs is extant.

5. The use of trained upperclassmen as leaders in orientation is rather extensive.

6. Peers have a tremendous impact upon each other.

7. Peers, trained to a paraprofessional level, can provide the necessary conditions to meet the needs of college students.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The objective of this investigation was to evaluate the impact selected approaches to the freshman orientation course have on students enrolling in East Central State College for the first time.

More precisely, this study was designed to determine if the orientation program was related to first semester cumulative grade point averages; to tendencies for freshmen to re-enroll for the spring semester, and/or to the freshmen's perceptions of the campus environment.

Description of Population

The population for this study consisted of randomly selected freshmen who enrolled in freshman orientation during the fall semester of 1971 at East Central State College, Ada, Oklahoma. This enrollment normally includes all beginning freshmen.

From the sections of Freshman Orientation 101, each enrollee was assigned a number from a table of random numbers (Winer, 1962). Then, the table was consulted for assignment of students to each of the three groups. The groups were randomly assigned to either the control group, the experimental (traditional) lecture group or the experimental (small groups) that functioned as peer-led process groups.

The experimental (traditional) group participated in the regular freshman orientation course taught by the professional staff instructor. The instructional method was presented by lecture, television videotape playbacks, and other audio-visual aids. The content of the course emphasized the geography of the campus, rules and regulations, how to study, library use skills, and other subject matter traditionally taught in orientation classes.

One hundred forty-three students assigned to the experimental (traditional) section finished the course and completed the instruments necessary for this investigation.

The experimental (small groups) participated in the freshman orientation course led by upperclassmen trained in group dynamics. Seventy-four freshmen finished this experience. This number was determined by the limited number of available group leaders.

Fifty enrolled freshmen students who had enrolled in Freshman Orientation 101 were called together and told that

the college would not be able to offer them orientation during the fall semester. These students reported back on the date set for the posttest. Of the original 50 control group "CG" members, 36 were posttested and served as the controls.

Selection and Training of Group Leaders

The upperclassmen used as group leaders were selected from applicants having been recommended by faculty, student personnel staff, and/or psychology classes. Those selected to be group leaders participated in a pre-service training seminar and training sessions that ran concurrently to the group leading experience.

Dr. Rex Finnegan, Director of Counseling Services; and Dr. Pat Murphy, senior staff counselor; Oklahoma State University, Stillwater, Oklahoma, served as consultants to the pre-service training seminar. Dr. Finnegan and Dr. Murphy designed the seminar along the lines of the National Training Laboratory (NTL) model (Bradford, 1964).

The main goals of this training session included (1) developing a communal interest and "stake" in the upcoming group experience, and (2) building a program relevant to the freshmen (Finnegan, 1971). Specifically, theory input, active group participation, and activity processing were used to obtain the goals of the seminar.

The trainers taught the theory by lecturettes, films, tapes and demonstrations. The concepts and/or skills set forth in theory form were then explored and expanded upon by the individuals in small group interactions. After each person had an opportunity to participate, the whole group would re-form into one or two groups being led by the trainers. These process groups analyzed, evaluated and provided feedback about the activities undergone.

Specific activities experienced by the seminar enrollees (future freshmen orientation group leaders) included: (1) getting acquainted exercises, (2) paraphrasing exercises, (3) learning how to create useful feedback, (4) receiving leadership theory lecturettes, (5) mirroring exercises, (6) role playing to teach concept of sharing leadership, (7) participating in a power politics exercise, (8) viewing the films Twelve Angry Men and Flight of the Phoenix, and (9) using a group decision making exercise, commonly known as the "NASA exercise."

The seminar participants were exposed to an experience emphasizing how a group functions and how this knowledge is used to assist individual members of the group to "grow" or to solve their problems.

Following the seminar, the student group leaders attempted to facilitate their assigned freshmen orientation group in a manner similar to their seminar experience. These

trained peer leaders (or paraprofessional counselors) were supported during the nine week experimental period by weekly sessions held for them. These concurrent supporting and training sessions emphasized the purposes, potentialities, and problems evolving from their experience with the freshman orientation groups.

Collection of Data

After the organized orientation programs had been experienced by the freshmen in the two experimental segments, "T" and "SG", all three groups were administered the College and University Environment Scales, second edition, on November 11, 1971.

Following up, in January 1972, overall first semester grades were obtained from the registrar's records. Enrollment data were studied to determine spring 1972 enrollment figures relating to the three groups.

Instrumentation

The College and University Environment Scales (CUES) was the basic scale instrument of this investigation. An attempt was made to assess the qualities of a college campus based upon student perception by CUES. The reality of the instructors, the facilities and services and the myriads of

personal contacts that exist have their importance in the perceived relationships to other things and people.

The perceptions of these relationships can be measured. One way is to record the individual's perceptions of various facets of campus life. The College and University Scales, second edition, has been designed and validated upon the premise of measuring students perceptions of the campus.

A posttest administration of CUES was used for two reasons. Reiner and Robinson (1970) have noted the different scores obtained from freshmen students prior to their attending college and their responses after having attended for some time. The different scores were explained as the difference between how the beginning students "expected" the college to be like and how they later "perceived" the college environment. Since the purpose of this study was to measure "perceptions" of the college campus climate, a posttest approach was required.

Secondly, a re-testing necessary in a pretest/posttest design might influence the posttest scores since the intervening experimental period was relatively short (Sax, 1968). An additional concern of the investigator was that a pretest of the CUES would contaminate the experiment by possibly suggesting the purpose or objective of the experimental treatment (Sax, 1968).

Pace (1969) reported scale scores group themselves rather distinctly according to the type of college students attended. For this reason, the normative sample used in this investigation was designated by Pace (1969) as Teachers Colleges. One of the colleges in this standardized sample has Southeastern State College, Durant, Oklahoma. Although East Central State College and Southeastern State College lost their teacher's college title several years ago, these schools are obviously of a similar type.

In an earlier conpendium of research, Pace (1963) concluded that

> ... there is no important or meaningful relationship between students' academic aptitude or personality characteristics and their perception of the college environment /p. 28/.

A rather thorough review of the research literature related to CUES produced only one isolated study concerning a junior college that contradicted Pace's comments. Reiner (1970) did find high school rank in class and verbal score were related to predictability of CUES scale scores on the Awareness, Propriety, and Scholarship scales.

Since Pace (1963; 1969) had a 100 college sample and a review of other related studies to support his contention that academic ability and personality characteristics were not meaningfully related to CUES responses, this investigator chose to assign subjects randomly to the experimental and control groups rather than attempt a "matching" of groups.

Pace (1969) developed the arbitrary logic that anytime two-thirds of the responses were marked in the same direction, this item was being perceived as "characteristic" of that college. Following that rationale, Table I compares the mean scores of freshmen from Reiner's (1970) study, Pace's (1969) study, and the scores obtained from the present investigation.

TABLE I

CUES MEAN SCORES

	A	B	C	D	E	F	G
Reiner study	14	28	26	17	17	NA	NA
Pace "TC"	26	25	16	20	15	NA	NA
ECSC	27	24	17	15	24	24	13

A = Practicality; B = Community; C = Awareness; D = Propriety; E = Scholarship; F = Campus Morale; G = Quality of Teaching

The total instrument contains 160 items. Some of the items are keyed differently to obtain scores on different sub-tests. Five scales, containing twenty items each, are described by Pace (1969).

1. Practicality: The twenty items that contribute to the score from this scale describe an environment characterized by enterprise, organization, material benefits, and social activities. There are both vocational and collegiate emphases. A kind of orderly

supervision is evident in the administration and the classwork. As in many organized societies there is also some personal benefit and prestige to be obtained by operating in the system -- knowing the right people, being in the right clubs, becoming a leader, respecting one's superiors, and so forth. The environment, though structured, is not repressive because it responds to entrepreneurial activities and is generally characterized by good fun and school spirit.

2. Community: The items in this scale describe a friendly, cohesive, group-oriented campus. There is a feeling of group welfare and group loyalty that encompasses the college as a whole. The atmosphere is congenial; the campus is a community. Faculty members know the students, they are interested in their problems, and they go out of their way to be helpful. Student life is characterized by togetherness and sharing rather than by privacy and cool detachment.

3. Awareness: The items in this scale seem to reflect a concern about, and emphasis upon, three sorts of meaning: personal, poetic, and political. An emphasis upon self-understanding, reflectiveness, and identity suggests the search for personal meaning. A wide range of opportunities for creative and appreciative relationships to painting, music, drama, poetry, sculpture, architecture, and the like, suggests the search for poetic meaning. A concern about events around the world, the welfare of mankind, and the present and future condition of man suggests the search for political meaning and idealistic commitment. What seems to be evident in this sort of environment is a stress on awareness, an awareness of self, of society, and of aesthetic stimuli. Along with this push toward expansion, and perhaps as necessary condition for it, there is an encouragement of questioning and dissent and a tolerance of nonconformity and personal expressiveness.

4. Propriety: These items describe an environment that is polite and considerate. Caution

and thoughtfulness are evident. Group standards of decorum are important. There is an absence of demonstrative assertive, argumentative, risk-taking activities. In general, the campus atmosphere is mannerly, considerate, proper, and conventional.

5. Scholarship: The items in this scale describe an environment characterized by intellectually scholastic discipline. The emphasis is on competitively high academic achievement and a serious interest in scholarship. The pursuit of knowledge and theories scientific or philosophical, is carried on rigorously. Intellectual speculations, an interest in ideas, knowledge for its own sake, and intellectual discipline -- all these are characteristic of the new environment /p. 11/.

Two new scales that have been added to the second edition measure, 1) Campus Morale, twenty-two items; and 2) The Quality of Teaching and Faculty-Student Relationships, eleven items:

6. Campus Morale: The items in this scale describe an environment characterized by acceptance of social norms, group cohesiveness, friendly assimilation into campus life, and, at the same time, a commitment to intellectual pursuits and freedom of expression. Intellectual goals are exemplified and widely shared in an atmosphere of personal and social relationships that are both supportive and spirited.

7. Quality of Teaching and Faculty-Student Relationships: This scale defines an atmosphere in which professors are perceived to be scholarly, to set high standards, to be clear, adaptive and flexible. At the same time, this academic quality of teaching is infused with warmth, interest, and helpfulness toward students /p. 11/.

The scales were scored by the key Pace (1969) described. A weight of zero was assigned when the item was marked in the

direction other than proposed by the Pace key. A weight of one was assigned to items marked in the keyed direction.

In the technical manual accompanying the scale, Pace (1969) presents the internally derived consistency estimates as follows: Practicality, .89; Community, .92; Awareness, .94; Propriety, .89; and Scholarship, .90. The two new scales are experimental in nature and did not have reliability estimates reported.

The validity of the CUES was determined by comparing CUES response patterns correlationally to other well-known research instruments. Pace (1969) compared the CUES responses to Astin's (1965) Who Goes Where to College?, and the National Opinion Research Center (NORC) survey (NORC, 1961).

Astin's (1965) Who Goes Where to College? was the application of the well-known Environmental Assessment Technique (EAT) (Astin and Holland, 1961).

The 1961 NORC survey had students to rate their college on the variables of teaching excellence, research facilities, faculty, and student body (National Opinion Research Center, 1961).

Based on the correlations found, Pace (1969) noted several validation findings:

1) Characteristics of students are generally congruent with characteristics of the school they attend.

[2] The behavior of students and various attitudes and values expressed by them in college are also generally congruent with the environmental press of their campus.

[3] Some of the "institutional factors" described by Astin have modest relationships to the campus atmosphere perceived by students.

[4] The conclusion from such association is that campus atmosphere, as measured by CUES, is a concept buttressed by a good deal of concurrent validity [pp. 53-54].

Experimental Treatment

The evaluation of experimental (traditional) group has as its purpose the validation of the effectiveness of the traditional freshman orientation class. This group experienced freshman orientation in the form of lectures, videotapes, and other audio-visual aids used to convey the subject content of college rules and regulations, how to study, location of offices and services on campus, how to use the library, and class registration information. This group attended large lecture sections for two hours weekly for nine weeks. The Associate Deans of Student Personnel were the lecturers.

The experimental (small groups) orientation course had a different approach. This experimental group attended a small group meeting for two hours weekly for nine weeks. These groups were led by upper classmen who had minimal (one week's) training in small group dynamics; such as, group

development, group roles, observer techniques, role-playing and other specialized procedures.

These groups functioned in a group dynamics fashion with no emphasis made to any particular subject matter or topics. The structure was such that information, facts, and subject matter were of secondary importance. Rather, these peer-led groups functioned in a group development fashion.

A control group was appropriately selected for an evaluation of the effect the experimental (traditional) group has on freshmen as well as the effect of using small groups -- experimental (small groups). The control group was told that the college would be unable to offer them a course in freshman orientation during their first semester. The control group received no formalized orientation.

Analysis of Data

Analyses of the data are completed in two major procedural operations. The first analyses are made for the two experimental groups and the control group using an extension of Duncan's Multiple Range Test (Kramer, 1956). This test enabled a rigorous testing for statistically significant differences between pairs of treatment means.

The randomized assignment to groups and the use of a posttest only was based on the problem occurring when test

score validity would be questionable because of the short time lapse between pretesting and posttesting (Sax, 1968). The posttest score results are responses of the individuals in experimental and control groups on the seven subtests of the CUES.

The second set of analyses is made for the experimental and control group to compare the overall first semester grade point averages.

The third set of analyses was concerned with comparisons of re-enrollment data for the spring 1972 semester. This data of a nominal nature were compared using the Chi-square technique (Runyon, 1968).

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this chapter is to present the results of statistical analyses of the data. The .05 level of probability was used to determine the significance of all statistical tests. The hypotheses were non-directed; therefore, two-tailed tests of significance were employed.

The three groups of students were divided into the Experimental (Traditional), Experimental (Small Groups) and Control groups for the treatment period (freshman orientation).

After the course was completed, the CUES was administered to all three groups. The CUES includes seven scales whose purpose is to determine the perceptions students have of the characteristics of their college climate. The Practicality scale describes a climate of mission, material benefits, and social activities. The Community scale depicts a friendly, cohesive, group-oriented campus. The Awareness scale emphasizes personal, poetic, and political values on

campus. The Propriety scale relates to concern for rules and regulations, politeness, and caution. Little assertion, argument or dissent would be evident on a campus characterized by a high score on the Propriety scale. The Scholarship scale characterizes a campus that emphasizes the intellectual and scholastic values. The Campus Morale scale describes a campus by its friendliness, freedom of expression, and group identity. The Quality of Teaching and Faculty-Student Relationships scale defines a climate where the faculty are scholarly, are flexible, and exhibit warmth and interest toward students.

After the fall semester was completed, overall first semester grades for the students who participated in the project were obtained from the records of the Registrar. Enrollment data for the following semester were analyzed to determine the enrollment patterns of the three groups.

Table II presents the results obtained by the November, 1971 administration of the CUES to the three groups in the project.

Table III depicts the results of the analysis of the grade point averages among the three groups.

Table IV portrays the results of the comparison of enrollment data among the three groups for the spring 1972 semester.

TABLE II

OBTAINED MEAN SCORES
AND STANDARD DEVIATIONS
ON CUES SCALES

	SMALL GROUPS Mean/s.d.	TRADITIONAL Mean/s.d.	CONTROL Mean/s.d.
Practicality	12.23/2.0	12.49/2.5	12.50/2.6
Community	11.00/3.0	11.04/3.2	11.61/3.2
Awareness	9.53/3.7	10.00/3.9	10.08/3.8
Propriety	7.96/2.9	9.10/3.3	8.33/3.0
Scholarship	11.42/3.2	11.52/3.3	11.81/3.3
Campus Morale	12.09/3.9	12.24/3.8	12.42/4.8
Qual. of Teach.	6.30/1.4	6.41/5.3	6.42/1.6

TABLE III

OBTAINED GRADE POINT AVERAGE
PER GROUP

	SMALL GROUPS	TRADITIONAL	CONTROL
Mean GPA	2.2966	2.3155	2.2791
s.d.	.784	.745	.787

TABLE IV

ENROLLMENT FIGURES, SPRING 1972
AMONG THE THREE GROUPS

	ENROLLED	NOT ENROLLED	TOTAL
Exp. (Small Groups)	58	16	74
Exp. (Traditional)	98	45	143
Control	27	9	36

Data for the control group and the two experimental groups were prepared for the Oklahoma State University Computer Center to be used on the IBM 7040 computer system.

Testing of Hypotheses

Hypothesis 1: There are no significant differences among the three groups in perceptions of the college campus climate as measured by the College and University Environment Scales, second edition.

Kramer's (1956) extension of Duncan's Multiple Range Test (1955) was used to test this hypothesis. The results of these analyses of scales are presented in separate table form. The calculation of the Community scale data between the control group and the experimental small groups yielded a value of 4.15. A value of 9.17 was needed for the .05 level of significance. When the control and experimental groups were compared, a value of 4.31 was obtained. A 8.70 was needed for significance. The traditional and control comparison yielded a .39 while a 8.70 was needed. The calculation of the Community scale yielded no significant difference; therefore, the null hypothesis was accepted. The result of the analysis is presented in Table V.

The calculated values of the Awareness scale did not reach the necessary criterion values on any of the three

treatment pair comparisons. The null hypothesis was accepted. The results of the analysis are presented in Table VI.

TABLE V

COMMUNITY SCALE
(EMS = 9.86; df = 250)

Group Comparisons	N	$\bar{X}$	Calculated Value	Criterion Value	Results
Control	36	11.61			
vs.			4.15	9.17	Not Sign.
Experimental	74	11.00			
Control	36	11.61			
vs.			4.31	8.70	Not Sign.
Traditional	143	11.04			
Traditional	143	11.04			
vs.			.39	8.70	Not Sign.
Experimental	74	11.00			

The calculated values of the Practicality scale did not reach the necessary criterion values on any of the three treatment pair comparisons. The .05 level of probability was not obtained; therefore, the null hypothesis was accepted. The results of the analysis are presented in Table VII.

The calculated values of the Scholarship scale did not reach the necessary criterion values on any of the three

treatment pair comparisons. The .05 level of probability was not obtained; therefore, the null hypothesis was accepted. The results of the analysis are presented in Table VIII.

TABLE VI

AWARENESS SCALE
(EMS = 14.90; df = 250)

Group Comparisons	N	$\bar{X}$	Calculated Value	Criterion Value	Results
Control	36	10.08	3.74	11.27	Not Sign.
vs. Experimental	74	9.53			
Control	36	10.08	.62	10.69	Not Sign.
vs. Traditional	143	10.00			
Traditional	143	10.00	4.60	10.69	Not Sign.
vs. Experimental	74	9.53			

The calculated values of the Propriety scale reached the necessary criterion value on only one of the comparisons of treatment pairs. When the traditional was compared to the small groups, a value of 11.27 was obtained. A value of 9.23 was needed. The results of the analysis are presented in Table IX.

TABLE VII

PRACTICALITY SCALE
(EMS = 5.63; df = 250)

Group Comparisons	N	$\bar{X}$	Calculated Value	Criterion Value	Results
Control	36	12.50			
vs.			1.83	7.04	Not Sign.
Experimental	74	12.23			
Control	36	12.50			
vs.			.077	6.68	Not Sign.
Traditional	143	12.49			
Traditional	143	12.49			
vs.			2.55	6.68	Not Sign.
Experimental	74	12.23			

TABLE VIII

SCHOLARSHIP SCALE
(EMS = 10.89; df = 250)

Group Comparisons	N	$\bar{X}$	Calculated Value	Criterion Value	Results
Control	36	11.81			
vs.			2.65	9.34	Not Sign.
Experimental	74	11.42			
Control	36	11.81			
vs.			2.23	8.86	Not Sign.
Traditional	143	11.52			
Traditional	143	11.52			
vs.			.98	8.86	Not Sign.
Experimental	74	11.42			

TABLE IX

PROPRIETY SCALE
(EMS = 9.99; df = 250)

Group Comparisons	N	$\overline{X}$	Calculated Value	Criterion Value	Results
Traditional	143	9.11			
vs.			11.27	9.23	Sign. at .05 level
Experimental	74	7.96			
Traditional	143	9.11			
vs.			6.01	8.75	Not Sign.
Control	36	8.33			
Control	36	8.33			
vs.			2.52	8.75	Not Sign.
Experimental	74	7.96			

The calculated values of the Campus Morale scale did not reach the necessary criterion values on any of the three treatment pair comparisons. The .05 level of probability was not obtained; therefore, the null hypothesis was accepted. The results of the analysis are presented in Table X.

The calculated values of the Quality of Teaching scale did not reach the necessary criterion values on any of the three treatment pair comparisons. The .05 level of probability was not obtained; therefore, the null hypothesis was accepted. The results of the analysis are presented in Table XI.

TABLE X

CAMPUS MORALE SCALE
(EMS = 15.82; df = 250)

Group Comparisons	N	$\bar{X}$	Calculated Value	Criterion Value	Results
Control	36	12.42			
vs.			2.79	11.62	Not Sign.
Experimental	74	12.01			
Control	36	12.42			
vs.			1.31	11.02	Not Sign.
Traditional	143	12.25			
Traditional	143	12.25			
vs.			2.35	11.02	Not Sign.
Experimental	74	12.01			

TABLE XI

QUALITY OF TEACHING SCALE
(EMS = 16.58; df = 250)

Group Comparisons	N	$\bar{X}$	Calculated Value	Criterion Value	Results
Control	36	6.42			
vs.			.82	11.88	Not Sign.
Experimental	74	6.30			
Control	36	6.42			
vs.			.08	11.27	Not Sign.
Traditional	143	6.41			
Traditional	143	6.41			
vs.			1.08	11.27	Not Sign.
Experimental	74	6.30			

Hypothesis 2: There are no significant differences in cumulative first semester grade point averages among the traditional course participants, participants in small process groups led by peers, and in the control group who experienced no formal program.

The calculated values of the Grade Point Averages variable did not reach the necessary criterion values on any of the three treatment pair comparisons. The null hypothesis was accepted. The results of the analysis are presented in Table XII.

TABLE XII

ANALYSIS OF GRADE POINT AVERAGES AMONG THE THREE GROUPS

Group Comparisons	N	$\bar{X}$	Calculated Value	Criterion Value	Results
Traditional	143	231.56	28.05	2292.20	Not Sign.
vs.					
Control	36	227.92			
Traditional	143	231.56	19.21	2174.45	Not Sign.
vs.					
Experimental	74	229.66			
Experimental	74	229.66	11.15	2174.45	Not Sign.
vs.					
Control	36	227.92			

Hypothesis 3: There are no significant differences in enrollment for the succeeding semester among participants from the traditional classes, the small groups, or the control group.

The Chi square tests described by Runyon (1968) were calculated to the hypothesis. The resulting analysis is presented in Table XIII.

The calculated χ^2 value of 2.51 did not reach the tabled Chi square value associated with a probability of .05. This result did not indicate significant differences existing among the three groups; therefore, the null hypothesis was accepted.

TABLE XIII

CHI SQUARE COMPARISONS AMONG THE THREE GROUPS SPRING 1972 ENROLLMENT

Groups	Enrolled	Not Enrolled	Totals
Experimental (Small Groups)	58	16	74
Experimental (Traditional)	98	45	143
Control	27	9	36
Chi Square	2.51	df: 2	.05<p

Summary of Results

In the course of this investigation statistical tests were made of three major hypotheses. These three hypotheses were tested using three groups, the experimental (small groups), the experimental (traditional), and the control groups. The data upon which these statistical tests were made were from a total of 253 freshmen students enrolled in Freshman Orientation 101 for the fall 1971 semester at East Central State College. The .05 level of probability was used to determine the significance of all tests.

Analyses comparing experimental and control groups disclosed the fact that significant differences existed for the three groups on one scale of the CUES, the Propriety scale.

The portion of the hypothesis relative to the perceptions of the college campus climate, as measured by the Propriety scale of the CUES was rejected. The other hypotheses were accepted in their null form.

Comparisons between pairs of groups on the Propriety scale indicated that significant differences existed only between the experimental (small groups) and the experimental (traditional) group. The ratio of the number of responses made by the experimental (traditional) students indicated they perceived as more characteristic of their campus the descriptive items found on the Propriety scale. Analysis of the grade point average and the enrollment data produced no evidence of significant differences.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATION

Summary

The developing higher education movement in twentieth century America has nurtured the development of freshman orientation classes. Larger, more complex campus communities seemed to create a student need for formal orientation procedures.

Historically, the approach to orienting students has varied from campus to campus and from decade to decade. Whether orientation makes a difference in the development of students is generally an unanswered question. Most research deals with goals and activities, not in the actual differences to be found in students.

The primary purpose of this study was to evaluate two curricular approaches to freshman orientation at East Central State College; Ada, Oklahoma. It was hoped that the results of this study might contribute to the research concerning this important aspect of student personnel work in institutions of higher learning.

Two hundred fifty-three students enrolled in the fall 1971 freshman orientation class constituted the population for this study. These students were randomly assigned to three groups: (1) Experimental (traditional) lecture class with 143 students; (2) Experimental (small groups) with 74 students; and (3) the control group with 36 students. The experimental (small groups) section was further randomly assigned to small groups of ten or fewer with a trained upperclassman leader being randomly assigned to each of these groups.

The limited number of available trained upperclassmen leaders limited the total number of students that could be placed in the experimental (small groups) section.

A concern relative to waiving a required course (Freshman Orientation 101) for the members of the control necessitated a small number in that section.

It was hypothesized that: (1) At the end of the freshman orientation experience there would be no significant differences in perceptions of the college campus climate as measured by the College and University Environment Scales, (2) there would be no significant differences in cumulative first semester grade point averages among the three groups, and (3) there would be no significant differences in enrollment for the succeeding semester among participants from the traditional classes, the small groups, or the control group.

Appropriate statistical tests were used throughout this study. When differences at the acceptable level of significance were found to exist for the three groups, further tests were made to determine significant differences between all possible pairs of groups.

The statistical tests used in this study included the use of Kramer's (1956) extension of Duncan's Multiple Range Test (Duncan 1955). Kramer developed the use of the test for unequal group sizes.

The other statistical technique employed was the Chi square distribution approach in the comparison of enrollment data. The data was of a nominal nature requiring an appropriate nonparametric technique.

In this section, the three major hypotheses of the investigation are restated. A summary and discussion of the results of the statistical tests of these hypotheses is then presented.

1. There are no significant differences in perceptions of the college campus climate as measured by the College and University Environment Scales, second edition.

2. There are no significant differences in cumulative first semester grade point averages among the traditional course participants, participants in the small process groups led by peers, and the control group who experienced no formal program.

3. There are no significant differences in enrollment for the succeeding semester among

participants from the traditional classes, the small groups, or the control group.

By using Duncan's Multiple Range Test, one significant calculated values was obtained on the CUES data relative to the first hypothesis. The analysis indicated a significant difference in treatment means between the pair of experimental (traditional) and experimental (small groups). The high score on the Propriety scale by the experimental (traditional) section indicated conformity to expectations, rules, and regulations.

The Multiple Range Test technique, when applied to the grade point averages, indicated no significant differences.

The χ^2 technique was used to compare the enrollment data among the three groups for the succeeding semester, spring 1972. The tabled Chi square value associated with the required probability level was not reached.

Conclusions and Recommendations

Certain precautions should be kept in mind while interpreting the results of this study. The impact of the program upon the freshmen after a period of time is not available in this investigation. An ongoing study to follow these freshmen throughout their college career is being planned.

Another concern has to do with the uncritical generalizing of the findings. This study dealt with a specific population -- East Central State College freshmen enrolled in freshman orientation. No statistical evidence is available to indicate that this population is typical or atypical of any other group of freshmen either locally or nationally.

The evidence resulting from the analysis of data appears to be supportive of these conclusions: (1) Participation in either a traditional freshman orientation class or in a small, peer-led process group does not seem to change significantly the perception of the campus environment except for the noted difference on the Propriety scale, (2) participation in either form of the freshman orientation program does not seem to contribute to a significant difference in grade point averages, or (3) participation in the freshman orientation program does not seem to be related to continued enrollment rates.

Subsequent studies of the problem confronted by this investigation might offer more thorough training of the peer leaders and a longer experimental period. A follow-up evaluation throughout the subjects college years is to be recommended and planned.

A SELECTED BIBLIOGRAPHY

Arbuckle, D.

1949 "College Experiment in Orientation." Occupations, XXVIII, 112-117.

Astin, A.

1965 Who Goes Where to College? Chicago: Science Research Associates.

Astin, A., and J. Holland.

1961 "The Environmental Assessment Technique: A Way to Measure College Environments." Journal of Educational Psychology, LII, 308-316.

Ball, M.

1923 "Introducing Freshmen to Scholarship." School and Society, VII, 205-208.

Baur, E.

1965 Achievement and Role Definition of the College Student. U. S. Department of Health, Education, and Welfare Cooperative Research Project No. 2605. Lawrence, Kansas: University of Kansas.

Bell, D.

1968 Reforming of General Education. New York: Anchor Books.

Bergin, A., and S. Soloman.

1963 "Personality and Performance Correlates of Empathic Understanding in Psychotherapy." American Psychologist, XXVIII, 393.

Birney, R., and H. Coplin, and R. Grose.

1960 The Class of 1959 at Amherst College: A Preliminary Report. Amherst, Mass: Committee on Guidance and Counseling, Amherst College.

Black, R.

1964 "Student Needs and Orientation Director's Aspirations." Journal of College Student Personnel, VI, 102-108.

Bookman, G.

1948 "Freshman Orientation Techniques in College and Universities." Occupations, XXVII, 163-166.

Bonner, D.

1970 A Pilot Project for Development of a Group Guidance Program. (Unpublished project mimeo, Ada, Oklahoma).

1971 A Proposed Freshman Orientation Model. (Unpublished project mimeo, Ada, Oklahoma).

Bradford, Leland P. (Ed.)

1964 T-Group Theory and Laboratory Training. New York: John Wiley and Sons.

Brown, W.

1965 "Student-to-Student Counseling for Academic Adjustment." Personnel and Guidance Journal, XLIII, 811-817.

1971 "Effectiveness of Student-to-Student Counseling or the Academic Adjustment of Potential College Dropouts." Journal of Educational Psychology, LXII, 285-289.

Brown, W. and E. Hassey, and F. Cortes.

1970 "Adaptabilidad De La Orientación De Estudiante a Estudiante Para El Ajuste Academico." Revista Interamericano de Psicologia, IV, 3-4.

Brubacher, J. and W. Rudy.

1968 Higher Education in Transition. New York: Harper and Row.

Bushnell, J.

1962 "Student Culture at Vassar." The American College. New York: John Wiley and Sons.

Caple, R.

1964 "Rationale for Orientation." Journal of College Student Personnel. VI, 42-46.

Carkhuff, R.

1969 Helping and Human Relations: Practice and Research. New York: Holt, Rinehart and Winston Co.

1971 "Principles of Social Action in Training for New Careers in Human Service." Journal of Counseling Psychology, XVIII, 147-151.

Carkhuff, R. and B. Berenson.

1967 Beyond Counseling and Therapy. New York: Holt, Rinehart and Winston, Inc.

Carkhuff, R. and C. Truax.

1965 "Training in Counseling and Psychotherapy," Journal of Consulting Psychology, XXIX, 333-336.

Caruthers, J.

1971 The Effects of Using Trained College Students to Lead Small Groups in College Adjustment Processes. (Unpublished mimeo, East Central State College, Ada, Oklahoma).

Coelho, G. and D. Hamburg, and E. Murphey.

1963 "Coping Strategies in a New Learning Environment: A Study of American College Freshmen." Archives of General Psychiatry, IX, 433-443.

Cowan, S. and M. Zak, and J. Laird.

1969 "A College Student Volunteer Program in the Elementary School System." In B. C. Guerney. Psychotherapeutic Agents: New Roles for Nonprofessionals, Parents, and Teachers. New York: Holt, Rinehart and Winstor.

Doermann, H.

1966 The Orientation of College Freshmen. Baltimore: Williams and Williams Co., 1926, as cited in Drake, ERIC, 1966.

Drake, R.

1966 "Review of the Literature for Freshman Orientation Practices in the U. S." ERIC, ED 030, 920.

Duncan, D. B.

1955 "Multiple Range and Multiple F Tests." Biometrics, XI, 1-42.

Fahrbach, C.

1960 "A University Looks at Its Precollege and Fall Orientation Program." College and University, XXXV, 166-167.

Farnsworth, D.

1957 Mental Health in College and University. Cambridge, Mass: Harvard University Press.

Feldman, K. and T. Newcomb.

1969 The Impact of College on Students. San Francisco: Jossey-Bass, Inc.

Finnegan, R.

1971 An Open Ended Learning Model For Small Group Interaction. (Unpublished mimeo copy, Stillwater, Oklahoma).

Forrest, D. and R. Knapp.

1966 "Summer College Orientation Programs." Journal of College Student Personnel, VII, 47-49.

Foxley, C.

1969 "Orientation or Dis-orientation?" Personnel and Guidance Journal, XLVIII, 218-220.

Freedman, M.

1960 "Some Observations of Students as They Relate to Orientation Procedures in Colleges and Universities." Journal of College Student Personnel, II, 2-10.

1971 "Freshmen Get New Kinds of Transitional Help." College Management, VI, 6-8.

1971 Freshman Orientation Handbook. University of Maryland, College Park, Maryland.

1971 Freshman Orientation Programs Bulletin. Purdue University, Lafayette, Indiana.

1971 Freshman Orientation: New Student Guide. University of South Carolina, Columbia, South Carolina.

1971 Freshman Orientation: Shocker Week. Bulletin, Wichita State University, Wichita, Kansas.

Goodrich, T., and R. Pierson.

1959 "Informal Observations in Guidance; Pre-College Counseling at Michigan State University." Personnel and Guidance Journal, XXVII, 595-597.

Grant, H.

1971 "Orientation and Today's Student." Speech at National Orientation Directors' Conference, Oklahoma State University, Stillwater, Oklahoma.

Grier, D.

1966 "Orientation--Tradition or Reality?" National Association of Student Personnel Administrators, III, 37-41.

Guerney, B.

1969 Psychotherapeutic Agents: New Roles for Nonprofessionals, Parents, and Teachers. New York: Holt, Rinehart, and Winston.

Hardee, M.

1959 The Faculty in College Counseling. New York: McGraw-Hill.

Hoffman, R. and R. Plutchik.

1959 Small Groups in Orientational Teaching. New York: G. P. Puttman.

James, E.

1969 Dean of East Central State College, Personal Interview.

Kamens, D.

1967 "Institutional Stratification and Role Commitment: College Effects on Dropout." (Unpublished Doctoral Dissertation, Columbia University).

Kamm, R. and C. Wrenn.

1947 "Current Development in Student Personnel." School and Society. LXIII, 89-92.

Kauffman, J.

1968 The Student in Higher Education. New Haven: The Hazen Foundation.

Kramer, C. Y.

1966 "Extension of Multiple Range Tests to Group Means With Unequal Numbers of Replications." Biometrics, XII, 307-310.

Kreitzer, S.

1969 "College Students in a Behavior Therapy Program with Hospitalized Emotionally Disturbed Children." In B. Guerney (Ed.) Psychotherapeutic Agents: New Roles for Nonprofessionals, Parents and Teachers. New York: Holt, Rinehart, and Winston.

Kronovet, E.

1969 "Current Practices in Freshman Orientation Throughout the United States." Improving College and University Teaching, XVII, 204-207.

Marker, D.

1970 Director of Freshman Orientation, East Central State College, Ada, Oklahoma. Personal Conference.

Matson, J.

1970 Peer Counseling. ERIC.

Mayhew, L.

1966 The College and the Student. Washington: American Council on Education.

1969 Contemporary College Student and the Curriculum. Atlanta: Southern Region Education Board.

Maxwell, R.

1970 "Why Students Leave East Central." (Unpublished Research Memo, Ada, Oklahoma).

Mueller, K.

1961 Student Personnel Work In Higher Education. Boston: Houghton-Mifflin Company.

Muro, J.

1970 "Community Volunteers: A New Thrust for Guidance." Personnel and Guidance Journal, XLIX, 137-141.

Myers, K.

1964 "College Freshman: A Faculty Responsibility." Improving College and University Teaching, XII, 9-10.

National Opinion Research Center (NORC) Bulletin, Survey of 1961, 1964 graduates. As cited in Pace, Robert.

1961 College and University Environment Scales, Technical Manual. Princeton: Educational Testing Service.

Newcomb, T.

1968 "Students Peer Group Influence." In Yamamoto, Kaoru, (Ed.). The College Student and His Culture: An Analysis. Boston: Houghton-Mifflin.

Pace, R.

1963 Preliminary Technical Manual, College and University Environment Scales, First Edition. Princeton: Educational Testing Service.

1969 College and University Environment Scales, Second Edition, Technical Manual. Princeton: Educational Testing Service, 11.

Patty, A.

1964 "Freshman Orientation: A Continuing Concern." Improving College and University Teaching, XIV, 184-188.

Pervin, L.

1966 "The Later Academic, Vocational, and Personal Success of College Dropouts." In Pervin, L., Reik, L., and Dalrymple, W. (Eds.). The College Dropout and the Utilization of Talent. Princeton: Princeton University Press.

Plutchik, R. and R. Hoffman.

1958 "Small Groups College Orientation Program." Journal of Higher Education. XXIX, 278-279.

Pyle, R. and F. Snyder.

1971 "Students as Paraprofessional Counselors at Community Colleges." Journal of College Student Personnel, XII, 259-260.

Reiner, J.

1970 "Students Academic Ability and Perceptions of College Environment." The Journal of Experimental Education, XXXVIII, 69-71.

Reiner, J. and D. Robinson.

1970 "Perceptions of College Environment and Contiquity with College Environment." Journal of Higher Education, XLI, 130-139.

Rioch, M., and C. Elkes, and A. Flint.

1965 Pilot Project in Training Mental Health Counselors. Public Health Service Publication, No. 1254, Department of Health, Education and Welfare, Washington, D. C.

Riesman, D.

1961 "Changing Colleges and Changing Students." National Catholic Education Association, LVIII, 104-115.

Riessmann, F.

1965 "The Helping Relationship." Social Work, X, 27-32.

Reiter, H.

1964 "The Effect of Orientation Through Small Group Discussions on Modification of Certain Attitudes." Journal of Educational Research, LVIII, 65-68.

Ro[illegible]s, C.

1962 "The Interpersonal Relationship: The Core of Guidance." Harvard Educational Review, XXXII, 416-429.

Runyon, R. and A. Haber.

1968 Fundamentals for Behavior Statistics. Reading, Massachusetts: Addison-Wesley Publishing Company.

Sanford, N.

1956 "Personality Development Through the College Years." Personnel and Guidance Journal, XXXV, 74-80.

Sax, G.

1968 Empirical Foundations of Educational Research. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Schaffer, R.

1962 "New Look at Orientation." College and University, XXXVII, 273-275.

Strang, R.

1951 "Orientation of New Students." Student Personnel Work in College. C. G. Wrenn (Ed.). New York: Ronald Press.

1969 To Establish Justice, To Insure Tranquility, A Final Report. Prepared by the National Committee on the Causes and Preventions of Violence. Washington, D. C.: Government Printing Office.

Tomlinson, T. and J. Hart.

1962 "A Validation Study of the Process Scale." Journal of Consulting Psychology, XXVI, 74-78.

Wagner, S.

1969 President of East Central State College, Inter-Office mimeo to Research and Development Office.

Warren, D.

1970 "An Investigation of the Impact of a Freshman Orientation Course Upon College Students." (Unpublished Doctoral dissertation, Oklahoma State University).

Wert, J. and C. Neidt, and J. Ahmann,

1954 Statistical Methods In Educational and Psychological Research. New York: Appleton-Century-Crofts, Inc.

Wigent, P.

1971 "A Student-Directed Orientation Program." Journal of College Student Personnel, XII, 370.

Winer, B.

1962 Statistical Principles in Experimental Design. New York: McGraw-Hill, 659-660.

Wrenn, C.

1930 "Origin and Status of Orientation." School and Society, 336-337.

Zunker, V., and W. Brown.

1966 "Comparative Effectiveness of Student and Professional Counselors." Personnel and Guidance Journal, 738-743.